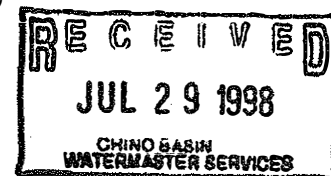


original in BK
TS
MS

1 SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 IN AND FOR THE COUNTY OF SAN BERNARDINO
3 WEST DISTRICT



6 CHINO BASIN MUNICIPAL WATER
7 DISTRICT,

Plaintiff

v.

9 CITY OF CHINO, et al.,

Defendants.

Case No. RCV 51010
(Formerly Central District Case No.
164327)

REPORT AND RECOMMENDATION
OF SPECIAL REFEREE
REGARDING CHINO BASIN
WATERMASTER JUNE 29, 1998
RECOMMENDED SCOPE OF WORK
FOR THE DEVELOPMENT OF AN
OPTIMUM BASIN MANAGEMENT
PROGRAM FOR THE CHINO BASIN

14
15
16 The Chino Basin Watermaster transmitted to the Court and the Special Referee the
17 "Recommended Scope of Work for the Development of the Chino Basin Optimum Basin
18 Management Program" ("OBMP Scope of Work") by the July 1, 1998 deadline set forth in the
19 Court's ruling of February 19, 1998 ("2/19/98 Ruling"). That ruling directs Special Referee to review
20 the OBMP Scope of Work for technical and legal sufficiency and to make a report and
21 recommendation to the Court by July 30, 1998. (2/19/98 Ruling at 9-10.) As authorized by the
22 Court, consulting hydrologist Joseph Scalmanini has reviewed the OBMP Scope of Work and
23 provided his comments and suggestions. (See attached correspondence from Joseph Scalmanini
24 dated July 21, 1998.)

25 Board Chairman Neufeld noted in his June 29, 1998 transmittal letter that the Watermaster
26 Board and Advisory and Pool Committees have developed the OBMP Scope of Work through an
27 intense process which included many meetings of interested parties and meetings of the Pool
28 Committees, Advisory Committee, and the Chino Basin Watermaster Board. Watermaster staff has

1 | made efforts to provide information on the OBMP process via the website which the Court directed
2 | be established. The website information has not been as timely or complete as it might be. It will
3 | continue to be important that notices, agendas, minutes, and other important information be made
4 | available in a timely manner, both through the regular process of the Watermaster, as well as by using
5 | the website. It is important that the "collegial and synergistic" atmosphere described in Chairman
6 | Neufeld's letter continue. Full notice and dissemination of information will help achieve that end.

7 | **I. Recommendation for Review of OBMP Sections 1, 2, and 3**

8 | **(Engineering Tasks 1, 2 and 3)**

9 | The OBMP Scope of Work outlines six engineering tasks. The first of these is to develop
10 | OBMP criteria, the second is to assess the current state of the basin, and the third is to describe water
11 | demands and water supply plans. "The first three tasks define the planning environment that forms
12 | the basis for the Optimum Basin Management Program." (OBMP Scope of Work at 3.) The OBMP
13 | Development Schedule indicates that engineering tasks 1, 2 and 3 will be completed by the end of
14 | August (OBMP Scope of Work, Figure 1). These three tasks culminate in the drafting of OBMP
15 | Sections 1, 2, and 3. Because of the key role that the initial determinations play in completing and
16 | implementing the OBMP, the Court and Special Referee should carefully review the engineering
17 | tasks 1, 2 and 3 work product and OBMP Sections 1, 2, and 3 as soon as they are available.

18 | The Special Referee is to provide periodic reviews. The Special Referee and Watermaster
19 | staff jointly filed the first "Quarterly Progress Report" with the Court on June 4, 1998, and suggested
20 | that quarterly reports hereafter be submitted on September 15, 1998, December 15, 1998, March 17,
21 | 1999, and June 15, 1999. September 15 will be an important review date, since it will reflect review
22 | of the work product of the first three engineering tasks, and OBMP Sections 1, 2, and 3. Because
23 | those tasks will intrinsically affect the rest of the process, immediate response and comment should
24 | be helpful to the Watermaster. The Special Referee and Court will be provided with the engineering
25 | tasks 1, 2, and 3 work product and OBMP Sections 1, 2, and 3 at the end of August.

26 | **II. OBMP Criteria and Goals**

27 | The work product of engineering task 1 is the preparation of "Section 1 Optimum Basin
28 | Management Program Criteria." One aspect of that task will be to "develop" OBMP "goals."

1 (OBMP Scope of Work at 7 and 15.) The engineering consultant will develop a "Program Goals
2 Memorandum" as well as a memorandum on "program definitions and assumptions," including the
3 definition of the term "optimal." Both of these memoranda are anticipated to be circulated and
4 revised several times and ultimately included in the OBMP Section 1 criteria. (*Id.* at 15-16.)

5 Section 1 criteria and goals are discussed in less detail in the general OBMP Scope of Work.

6 There, the purpose of Section 1 is described as being:

7 . . . to define the physical limits of the Basin, interests within the Basin, objectives,
8 mission statement, and key definitions and assumptions of the Optimum Basin
Management Program.

9 (*Id.* at 6.) The mission statement (see discussion *infra*) and "core values" are recited, and the
10 assertion is made that "program goals" will be based on "consensus" and ". . . will be developed for
11 the interests described" in the OBMP. (*Id.* at 7.)

12 As the attached correspondence prepared by Joseph Scalmanini indicates, a clear definition
13 of the goals for the OBMP process is essential, and the goals will affect many aspects of the OBMP
14 development and implementation process. Mr. Scalmanini's comment reiterates the Regional Water
15 Quality Control Board comment that:

16 Specific, measurable, short-term, mid-term, and long-term water quality goals for the
17 basin should be developed during the OBMP process. Watermaster should clearly
18 state those goals that it will commit to achieving regarding the improvement of water
quality, either in relationship to the Regional Board's objectives or some other
measurable target.

19 (OBMP Scope of Work, Attachment B.) The purpose of articulating goals is to focus the OBMP
20 effort and, ultimately, to have a means to evaluate whether and in what manner immediate, mid-term,
21 and long-term goals are or are not achieved. Clearly, the OBMP Scope of Work recognizes that
22 goals are a crucial element in any planning process. Goals also become critical in evaluating the
23 effectiveness of implementation measures and in determining whether additional or different measures
24 must be undertaken. The setting of goals in the OBMP development process is not simply a semantic
25 exercise.

26 OBMP Section 2 is slated to define the "current state of the basin" and Section 3 will cover
27 "water demands and water supply plans". (OBMP Scope of Work at 8-9.) Mr. Scalmanini alludes
28 to the fact that the Scope of Work does not appear, however, to include a discussion of what the

1 problems in the basin are, and goals may not be fashioned to address specific problems. There have
2 been several reports which have described the basin and supply and demand projections; the
3 Watermaster has apparently decided to present that same information again in the OBMP. In order
4 to set goals and adopt criteria, however, a "problem statement" should be developed and included
5 in the OBMP Scope of Work, as well. How can the Watermaster define its goals before it sets out
6 the problems that it intends to address?

7 **III. The OBMP Mission Statement Appears to Limit Goals and Criteria**

8 Chairman Neufeld's letter reports that the Watermaster Board and the producers developed
9 a "mission statement" for the OBMP. That mission statement is part of the OBMP Scope of Work:

10 The purpose of the Optimum Basin Management Program is to develop a
11 groundwater management program within the provisions of the Judgment that
12 enhances the safe yield and the water quality of the basin, enabling all groundwater
13 users to produce water from the basin in a cost-effective manner.

14 (OBMP Scope of Work, at 6.) It is not clear how this mission statement is intended to be used in
15 further developing the OBMP. The phrase "within the provisions of the Judgment" suggests that
16 some limitation is intended as to the ultimate scope of the OBMP and its implementation. Is a
17 limitation intended and, if so, what is it?

18 This concern is heightened by other statements in the document, such as the following
19 sentence describing the engineering task of developing OBMP goals:

20 Given the interests that can be addressed by the Optimum Basin Management
21 Program and the mission statement developed by Watermaster, a set of draft program
22 goals will be developed.

23 (OBMP Scope of Work at page 15.) What has already defined the "interests that can be addressed"?
24 Are the "interests that can be addressed" only those that have consensus? The document reiterates
25 that:

26 Based on consensus, a clear statement of the program goals will be developed for the
27 interests described in the Optimum Basin Management Program.

28 (OBMP Scope of Work at page 7.) This somewhat circular set of statements is further confused by
the emphasis placed on the need to define "optimal". This has also been assigned as an engineering
task. (Id. at page 16.)

1 **IV. An Integral Part of The OBMP Process Should Be Legal Analysis**
2 **of Judgment Provisions Related to OBMP Implementation**

3 OBMP Attachment B contains preliminary suggestions of “management program concepts”
4 solicited by the Watermaster staff to aid in the development of the OBMP Scope of Work. Several
5 suggestions raise the issue of Judgment interpretation. For example, there are suggestions addressing
6 data collection and monitoring, imposing a program of charges which would provide economic
7 incentives and disincentives tied to certain OBMP implementation measures, and various programs
8 involving “redistribution” of groundwater production. The question raised by the mission statement
9 is whether any or all of these approaches would satisfy the mission statement’s criterion that they be
10 “within the provisions of the Judgment”.

11 The issue of data collection and monitoring illustrates the need for legal analysis to be an
12 integral part of the OBMP process. The success of groundwater basin modeling and analysis are tied
13 to the availability and sufficiency of basic data. The Judgment requires the installation of measuring
14 devices on all wells and requires reporting of production “...and such additional information as
15 Watermaster may require....” (Judgment at 13, ¶ 21, and 26, ¶ 47.) There is no express requirement
16 that producers report water level or water quality information. If the Watermaster wants to
17 “undertake relevant studies of hydrologic conditions, both quantitative and qualitative, and operating
18 aspects of implementation of the management program for Chino Basin”, the concurrence of the
19 Advisory or Pool Committees or written order of the Court is required. (Judgment at 14, ¶ 27 and
20 29, ¶ 54(b).)

21 Chairman Neufeld’s letter notes that “monitoring (as described in 205j Grant application)”
22 and “CIGSM Data & Program Update (as described in 319h application)” are “early implementation
23 items planned or already in progress for the OBMP”. Section 205(j) and 319(h) grants are authorized
24 by the federal Clean Water Act. Funding, however, may not be made available for either grant at this
25 time. If grant funding is not obtained, it is not clear that the OBMP will include monitoring as part
26 of implementation programs. Since monitoring needs to be included with or without outside funding
27 sources, the Judgment provisions should be taken into consideration in describing any monitoring
28

1 components of an implementation plan, and acknowledging the approval or Court order requirements
2 that would be involved.

3 Judgment Exhibits H and I anticipate a wide range of management options. As with data
4 collection and monitoring, the OBMP Attachment B letters suggest programs which the Judgment
5 may accommodate. Judgment Exhibit H's "facilities equity assessment" provisions are set forth in
6 the context of "long-term benefit of the entire basin", and in conjunction with the "optimum
7 management of the entire Chino Basin water resource". (Judgment Exh. H at 71, ¶ 9(a).) "In lieu
8 procedures" are presented as a potential component of "good management practices." (Judgment
9 Exh. H at 75, ¶ 11.) There are other provisions, as well, that are referred to explicitly as being in the
10 interest of "sound basin management" which should be considered in conjunction with the OBMP
11 scoping, and reflect suggestions included in the Attachment B letters. (See, e.g., Judgment Exh. H
12 at 77, ¶ 13 regarding restricting the exercise of assigned appropriative rights and Judgment Exh. I at
13 79, ¶ 1(b) regarding avoiding "unreasonable pumping patterns" as "an objective in management of
14 the Basin's waters...".)

15 The purpose here is not to focus on specific Judgment provisions, but, rather, to suggest that
16 the Watermaster Board's legal counsel should provide guidance to the Watermaster Board as to the
17 concept already adopted in the mission statement that the ultimate groundwater management program
18 be "within the provisions of the Judgment". It seems apparent that implementation of the OBMP
19 could include: (1) continuation of a program; (2) initiation of a new program pursuant to existing
20 Watermaster rules and regulations and which may require Advisory and Pool Committee approvals
21 or written order of the Court; (3) initiation of a new program which may require the adoption of new
22 rules and regulations and Advisory and Pool Committee approvals or written order of the Court; and
23 (4) initiation of a new program that is outside of the Judgment provisions, but which would further
24 compliance with the Physical Solution. The Judgment itself fully anticipates the need for flexibility:

25 40. Need for Flexibility. It is essential that this Physical Solution provide maximum
26 flexibility and adaptability in order that Watermaster and the Court may be free to use
27 existing and future technological, social, institutional and economic options, in order
28 to maximize beneficial use of the waters of the Chino Basin. To that end, the Court's
retained jurisdiction will be utilized, where appropriate, to supplement the discretion
herein granted to the Watermaster."

1 (Judgment at 23, ¶ 40.)
2

3 **V. Implementation Should Comprise Most of the OBMP**

4 The most recent general study drafted prior to the Court's order directing preparation of the
5 OBMP was the Chino Basin Water Resources Management Study — Final Summary Report
6 September 1995. That document did not address implementation, but noted that the next, key effort
7 would be to develop an implementation program. (*Id.* at 6-11.) Because of the extensive work that
8 has previously been done on many of the topics in the OBMP Scope of Work, the Watermaster Board
9 should focus the preponderance of its efforts now on describing, evaluating and selecting
10 implementation measures.

11 DATED: July 28, 1998

12 Respectfully submitted,

13 *Anne J. Schneider*

14 ANNE J. SCHNEIDER, Special Referee



July 21, 1998
File No. 98-1-001

Ms. Anne J. Schneider
Ellison & Schneider
2015 H Street
Sacramento, CA 95814-3109

**SUBJECT: REVIEW OF RECOMMENDED SCOPE OF WORK
OPTIMUM BASIN MANAGEMENT PROGRAM
CHINO BASIN**

Dear Ms. Schneider:

In response to your request, I have reviewed the Recommended Scope of Work for the Development of the Chino Basin Optimum Basin Management Program (OBMP) prepared by the Chino Basin Watermaster, dated June 25, 1998. Based on my review, I would offer the following comments which I understand you will incorporate with comments that you are drafting for submission to the Court.

The Scope of Work for the OBMP obviously represents a substantial amount of work by the Watermaster and the various interested parties in the Basin, and it also represents the direction for notably more work over the next year (followed, of course, by ongoing ground-water management actions through implementation of the OBMP). In that light, I hope that my comments will constructively add to the content and intent of the planned OBMP, and not be considered critical of the planning work completed to date.

In general, while some of my comments are specific to individual items in the Scope of Work, my most substantial comments can be summarized into four subject areas: 1) the need for a problem statement; 2) the need to establish definitive goals for the basin (based, at least in part, on identified problems in the basin); 3) an expanded list of management components; and 4) the need to identify ground-water monitoring as a management component which will be critical in the future ongoing evaluation of the effectiveness of the OBMP and, as necessary, the updating/revision of the OBMP to improve its effectiveness. My comments are primarily organized in those four subject areas, followed by a number of individual comments on various items in the Scope.

Ms. Anne J. Schneider
July 21, 1998
Page 2

Need for a Problem Assessment

In reading the Scope of Work and trying to envision the product that will result from it, the reader is left to wonder why this program is being developed. One usually manages ground-water resources for a reason; in this case, the management program is intended to preserve certain aspects of existing ground-water management (the Judgement), and to address certain problems which have emerged or expanded over the 20 years since the inception of ground-water management (adjudication) in the basin. Section 2 of the Scope of Work is intended to describe historical and current ground-water storage, production, and quality. It seems that Section 2 could notably serve the management planning process by concluding with a summary of current basin conditions, at least partly in the form of a problem statement: What, if anything, is undesirable or wrong in the basin? What needs to be improved or "fixed"? These statements or descriptions of problems would then serve two purposes: impetus, or at least explanation, for undertaking the substantial OBMP process; and bases for developing and adopting objectives of the OBMP.

Need for OBMP Goals

The closest thing to a statement of goals or objectives of the OBMP process is a sentence in Section 1 that promises a statement of program (presumably the OBMP) goals will be developed, based on consensus, for the interests described in the OBMP. While we might argue that goals for the basin/goals for the OBMP might have preceded the Scope of Work in order to establish a "target" for the Scope, it is clear that objectives now need to be established as a very early part of the actual OBMP development. Such objectives will become the basis for considering the type and potential effectiveness of management actions that might be considered for implementation. Such objectives will also be the bases for evaluating the ultimate effectiveness of the OBMP: whether, based on future monitoring and interpretation, the OBMP has achieved its desired intent; or whether it needs to be revised/updated to increase its effectiveness. I would suggest that there is a need to expand the Scope such that it clearly conveys the fact that the OBMP will identify goals for the basin, and that the intent of the OBMP will be to accomplish those goals. I would further suggest that there needs to be nexus between the problem statement described above and the basin goals. This is, in effect, the opportunity for the Watermaster to describe how it envisions and intends the basin to look in the future (e.g. in 5, 10, 25 years, and potentially farther).

Basin Management Components

Section 4 of the Scope includes three management components which are reportedly based on several years of study by Watermaster, and recognizes that other management components may be necessary and added through the current process. Included as Attachment B to the Scope are copies of suggested/recommended management components submitted by various interests in the basin. Many of the components in Attachment B are included within the three management components discussed in Section 4. However, in light of notable issues in the basin, it would appear that at least

Ms. Anne J. Schneider
July 21, 1998
Page 3

one component should be added to Section 4 (stabilization of subsidence), and three others either added individually or inserted into expanded discussions of the components already included (basin salt balance; ground-water quality goals and timeline; and water resources monitoring and future OBMP evaluation/updating).

Ground-Water Monitoring as a Management Component

In Section 4 of the Scope, it is noted that the OBMP will be modified over time and that the initial components of the OBMP can be modified, deleted and/or new components added in future revisions of the Program. Just as there are questions about why an OBMP is being developed and what the objectives for the basin are, the basis for future modification of the OBMP remains unidentified. Ultimately, I would suggest that there is nexus among: 1) the problem statement suggested above; 2) the goals for the basin in order to "fix" the identified problems; 3) the initial management components of the OBMP; and 4) ongoing monitoring, interpretation of monitored data, assessment of basin conditions in light of basin goals, and updating of the OBMP to maintain or improve the effectiveness of the various adopted management components as appropriate. As currently drafted, the Scope barely acknowledges the data sources on which the OBMP will be based (listed are sources of ground-water production data and sources of ground-water quality data). I would suggest that the OBMP should include three aspects of ground-water monitoring: 1) a discussion of historical and current monitoring, on which the descriptions of historical and current basin conditions will be based; 2) a description of a monitoring network and program which will be implemented on an ongoing basis, including responsible parties for field measurements and subsequent data collection and storage; and 3) a discussion of how the OBMP will be evaluated based on (monitored) basin response to the management components which are adopted and implemented; this latter use of monitoring will, of course, also be the basis for modification of the OBMP as described in Section 4 of the Scope.

On the general subject of monitoring, the Judgement is largely silent. Except for provisions that measurement devices be installed (presumably on all wells) and that annual reports be prepared by each party to document total pumpage "and such additional information as Watermaster may require", there are no specified provisions that any ground-water data (levels, quality, etc.) be collected and interpreted. As a result, and in light of the challenge of the OBMP, there appears to be a need to delineate some details of ground-water monitoring for purposes of describing basin conditions, developing solutions (OBMP management components), and evaluating the ongoing success of selected management actions. The transmittal letter with the Scope of Work lists several early implementation items planned or already in progress, including monitoring (as described in a 205j Grant application). Review of that Grant application indicates an intent to measure a total of 500 wells for a relatively short two year period; there are no monitoring details (well locations, well completion depths, frequency of measurements, analyses to be performed, etc.) in the Grant application. I would suggest that "current" water level and water quality data from numerous wells is likely to be of great value for definition of problems and as a basis for developing solutions, as

Ms. Anne J. Schneider
July 21, 1998
Page 4

indicated in the Grant application. However, I would also suggest that the monitoring time frame needs to be extended and that the number of monitoring points can likely be decreased for ongoing monitoring. There appears to be a need to recognize that basin management, based on data collection and interpretation in light of to-be-adopted goals, will effectively be "forever". A planned monitoring network and program will be essential parts of that ongoing management effort.

General Comments

In addition to the four comments discussed above, I would also offer the following individual comments on the Scope of Work for development of the OBMP.

Mission Statement - The Mission Statement declares that the purpose of the OBMP is "to develop a ground-water management program **within the provisions of the Judgement...**" (emphasis added). While I recognize that there is acceptance of the Judgement based on 20 years of experience with its effects in the basin, it is not clear how and to what extent this phrase may limit the scope and implementation of the OBMP. In other words, if some of the provisions of the Judgement need to be changed in order to effect necessary or desired improvements to the ground-water basin, the necessary changes to the Judgement will need to be made. I would suggest that the Scope not be constrained by "within the provisions of the Judgement". This should be clarified.

Core Values - Included in the Core Values is a statement that "all producers desire to produce water of a quality that is safe and suitable for the intended beneficial use". This statement could be literally interpreted to mean that ground-water quality, when "produced" (pumped from wells), would meet appropriate standards for intended beneficial use. If that is what was intended, then the OBMP has a substantial goal of ground-water quality improvement. If, on the other hand, the intention is that ground-water quality can be modified at the surface by treatment to meet intended beneficial use, such should probably be clearly stated. In a latter case, the "produced" water quality (meaning that which is discharged from wells) would not necessarily meet standards for every intended beneficial use; treatment would be necessary to, in effect, "produce" acceptable quality.

Section 3 Water Demand and Water Supply Plans - In this section, I would suggest that the subheadings "Source Water Supply" and "Reclaimed Water Flows" are not parts of a section entitled **Water Demand and Water Supply Plans**. Rather, they would appear to be logically part of Section 2 which describes the current state of the basin. Also, although a minor point, the subheadings entitled "Future Water Demands, Supply Plans and Costs" and "Source Water Supply" are redundantly included twice.

Section 5 Implementation Plan - As discussed in some of the accompanying documents, there remains the most work to be done on this part of the OBMP. Based on what is presented, however, I would offer the following comments. Under the first subheading "Action Items", I would suggest that the "Timeline for Component Implementation" be extracted (it is not an action item) and

Ms. Anne J. Schneider
July 21, 1998
Page 5

reinserted as a subheading at the same level as "Action Items", "Financing", etc.

The listing of funding programs and sources, including revenue generation and repayment plans, appears to assume that implementation of the OBMP will be contingent on acquiring outside funding (from local, state, or federal government sources, or from institutional sources). Such an assumption would be a significant potential constraint to implementation of the OBMP if outside funding cannot be obtained. This should be clarified.

As discussed above, I would suggest that the Implementation Plan (Section 5) include probably at least two more subheadings: "Water Resources Monitoring and Data Collection" and "Evaluation and Updating of OBMP".

Appendices

The technical appendices are noted to contain Task Memorandums for Engineering Work. Actually, there are no memoranda in the appendix; rather, there are extensive task descriptions for the engineering work.

The financial appendices are noted to contain Task Memorandums for the Financial Work. No financial task descriptions or memoranda are included as appendices and, as discussed elsewhere, are apparently still being developed.

I appreciate the opportunity to prepare and submit the above comments. I trust that they will be useful and contribute to development of a truly optimal basin management plan. If you wish to discuss any of the above, or if I can respond to any questions, I would be pleased to do so.

Sincerely,

LUHDORFF AND SCALMANINI
CONSULTING ENGINEERS



Joseph C. Scalmanini

JCS/pn

F:\98-1-001\Schneider, 7-21-98.wpd